



## Study Guide

# MPH-523: Health Economics in the Context of Health Services and Systems: Global Perspectives

<b>Institution</b>	University of Nicosia		
<b>Programme of Study</b>	Master of Public Health		
<b>Module</b>	MPH-523: Health Economics in the Context of Health Services and Systems: Global Perspectives.		
<b>Level</b>	Undergraduate <input type="checkbox"/>	Postgraduate (Master) <input checked="" type="checkbox"/>	
<b>Language of Instruction</b>	English		
<b>Mode of Delivery?</b>	Distance Learning <input checked="" type="checkbox"/>	Conventional <input type="checkbox"/>	
<b>Type of Course</b>	Required <input checked="" type="checkbox"/>	Elective <input type="checkbox"/>	
<b>Number of Group Advising Meetings/Teleconferences/Lectures</b>	Total:  29	With Physical Presence 0	Online:  29
<b>Assessment</b>	<ul style="list-style-type: none"><li>• Participation</li><li>• Assignments</li><li>• Exams</li></ul>		
<b>Number of ECTS credits</b>	10		

Preparation of Study Guide by:	
Review and approval of study Guide by:	



<b>i. Teaching Faculty</b>
Dr Raoul Hecker, Dr George Samoutis
<b>ii. Course:</b>
<b>Brief description of Course and Aims</b> This course aims to introduce the principles of health economics and analyse the different methods for assessing needs, pricing, reimbursing, prioritizing, and assessing utilization and performance of health services, as well as critically evaluate different healthcare systems globally highlighting the main characteristics, strengths, and limitations of each. The main learning objectives of the course are to enable students to:  <ol style="list-style-type: none"><li>1. Apply the major principles of health economics to analyse the different methods for pricing and reimbursing health care services, to assess health service needs and to prioritize resources in the context of justice and equity in health care provision</li><li>2. Apply methods for assessing utilization and performance of health services and healthcare, as well as methods for economic appraisal (incl. cost-effectiveness, cost-utility, and cost-benefit analysis) to design and evaluate cost-effective health services and systems and to perform clinical audits.</li><li>3. Critically evaluate different healthcare systems around the world in terms of the main characteristics, strengths, and limitations of each and use this experience for designing effective and efficient health services and systems.</li></ol>
<b>Expected Learning Outcomes</b> <ul style="list-style-type: none"><li>• Analyse the key definitions and ideas that outline Health Economics and evaluate the importance of the discipline within the application of the “fundamental economic problem” in health, i.e. the asymmetry of resources vs. healthcare needs.</li><li>• Relate and contrast different types of health insurance, including social insurance and voluntary private insurance.</li><li>• Critically evaluate the motives behind government intervention in healthcare markets as well as the means and methods through which this intervention takes place.</li><li>• Critically evaluate the different methods of financing healthcare services in the context of health systems.</li><li>• Analyse the terms of “cost”, “price”, “value” and “reimbursement”</li><li>• Justify the rationale behind economic evaluation in healthcare and appropriately apply the different types of economic evaluations (cost-minimization, cost-effectiveness, cost-utility, and cost-benefit analysis) for a healthcare intervention.</li><li>• Relate the basic steps of an economic evaluation (cost-effectiveness/cost utility analysis) for pharmaceuticals to key sources of information.</li><li>• Evaluate the key reasons behind uncertainty and appraise methods through which the uncertainty issue within an economic evaluation can be addressed.</li><li>• Apply analytical tools of health economics in the field of public health.</li><li>• Justify the role of economic analysis in the evaluation of preventive interventions and policies and argue on the usefulness of economic evidence towards supporting the implementation of preventive interventions.</li><li>• Analyse the mechanisms that motivate people towards or against “healthy choices” and provide examples of behavioural interventions that could be adopted as public health policies.</li></ul>

- Understand the concept of Mental Health as an intangible good and its difficulties to evaluate the benefit of any measures taken.
- Assess the mechanisms through which the health status of the population affects the growth of the economy.
- Evaluate the effects of economic growth on population health and appraise the difference of these effects on the various population groups, based on their socioeconomic status.
- Define the wellbeing in the shed of the Ottawa Charta's concept of "Salutogenesis"
- Critically evaluate the strengths and weaknesses of Bismarck-type systems and identify the key examples (countries) of application.
- Critically evaluate the strengths and weaknesses of Beveridge-type systems and identify the key examples (countries) of application.
- Comparatively assess the performance of insurance type vs. taxation type systems and critically evaluate the strengths and weaknesses of each system.
- Justify the need for universal coverage and the role of mixed methods of fund pooling.
- Debate the issues pertaining the ordering of and preferences for resource allocation states in healthcare within a social welfare function
- Evaluate the methods and applications of Multiple Criteria Decision Analysis in healthcare.

#### Teaching Material

- Weekly PowerPoint presentations
- Bibliography
  - Required
    1. Fried BJ, Gaydos LM , World Health Systems: Challenges and perspectives Second Edition(2nd ed.), Health Administration Press (2012).
    2. Drummond ME, Sculpher M, Claxton K, Stoddart GL, Torrance GW, Methods for the Economic Evaluation of Health Care Programmes (4th Edition), Oxford Medical Publications (2015).
  - Recommended
    1. Folland S, Goodman AC and Stano M, The economics of health and health care, Prentice Hall (7th Edition) (1997).
    2. Mastering, Lewis G, CRC Press (2014).
    3. Public Health: A Postgraduate Guide to Examinations and Revalidation, (2nd ed.), Sheringham J, Bernal JL, Crayford T.
    4. Distributing health care: economic and ethical issues, Dolan P and Olsen JA, Oxford University Press (2002).
    5. Economic Analysis in Health Care, Morris, S, Devlin, N, Parkin D, Wiley (2007).
    6. Essentials Of Health Care Finance (8th ed.), Cleverley OW, Cleverley OJ, Jones & Bartlett Learning (2017).
    7. Healthcare Finance: An Introduction to Accounting and Financial Management (5th ed.), Gapenski LC, Health Administration Press (2011).
    8. Cost-Effectiveness in Health and Medicine, Gold MR, Siegel JE, Russell LB, Weinstein MC, Oxford University Press (1996).
    9. Economics for Healthcare Managers, Third Edition (3rd ed.), Lee, HR, Health Administration Press (2014).
    10. Comparative Health Systems: Global Perspectives (1 Pap/Psc ed.), Johnson JA, Carleen S, Jones & Bartlett Learning (2011).

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**ECTS Credits**  
 Compulsory module corresponding to 10 ECTS.

**iii. Each Main Topic/Thematic Area:**

The details for each topic are provided in the respective week that follows in the given study guide.

**iv. Teaching Timetable**

Week	Topic & objective	Readings	Study Hours required	Assessed work & WebEx meetings
1	<ul style="list-style-type: none"> <li>1. Analyse the key definitions and ideas that outline Health Economics and evaluate the importance of the discipline within the application of the “fundamental economic problem” in health, i.e. the asymmetry of resources vs. healthcare needs</li> </ul>	<ul style="list-style-type: none"> <li>Welcome video by Course Lead (introduction to the Course, outline of course objectives, introduction to the course lecturers)</li> <li>PPT Presentation (Introduction to Health Economics)</li> </ul>	15 hours	<ul style="list-style-type: none"> <li>Discussion Forum (What is efficiency?)</li> <li>Webinar session</li> </ul>
2	<ul style="list-style-type: none"> <li>Relate and contrast different types of health insurance, including social insurance and</li> </ul>	<ul style="list-style-type: none"> <li>PPT Presentation (Healthcare Insurance and the Government’s Role in Healthcare)</li> </ul>	15 hours	<ul style="list-style-type: none"> <li>Discussion Forum (Market Failures in Healthcare)</li> </ul>

	<p>voluntary private insurance.</p> <ul style="list-style-type: none"> <li>• Critically evaluate the motives behind government intervention in healthcare markets as well as the means and methods through which this intervention takes place.</li> </ul>				
3	<ul style="list-style-type: none"> <li>• Critically evaluate the different methods of financing healthcare services in the context of health systems.</li> <li>• Analyse the terms of “cost”, “price”, “value” and “reimbursement”</li> </ul>	<ul style="list-style-type: none"> <li>• PPT Presentation (Financing Healthcare: the Concepts of Pricing and Reimbursement)</li> </ul>	15 hours	<ul style="list-style-type: none"> <li>• Discussion Forum (Healthcare expenditure per country)</li> <li>• Webinar Session</li> </ul>	
4	<ul style="list-style-type: none"> <li>• Justify the rationale behind economic evaluation in healthcare and appropriate</li> </ul>	<ul style="list-style-type: none"> <li>• PPT Presentation (Economic Evaluation in Healthcare: Methods)</li> </ul> <p><b>Lecture Notes</b></p>	15 hours	<ul style="list-style-type: none"> <li>• Discussion Forum (<b>Mandatory Activity:</b> Design an economic evaluation)</li> <li>• Webinar Session</li> </ul>	

	<p>y apply the different types of economic evaluations (cost-minimization , cost-effectiveness , cost-utility, and cost-benefit analysis) for a healthcare intervention.</p>	<ul style="list-style-type: none"> <li>• Study notes prepared by the course lead</li> </ul>			
5	<ul style="list-style-type: none"> <li>• Relate the basic steps of an economic evaluation (cost-effectiveness /cost utility analysis) for pharmaceuticals to key sources of information.</li> <li>• Evaluate the key reasons behind uncertainty and appraise methods through which the uncertainty issue within an economic evaluation can be addressed.</li> </ul>	<ul style="list-style-type: none"> <li>• PPT Presentation (Economic Evaluation of Healthcare Interventions: Case Study - Pharmaceuticals)</li> </ul>	15 hours	<ul style="list-style-type: none"> <li>• Discussion Forum (<b>Mandatory Activity:</b> Evaluate a published economic evaluation)</li> <li>• Webinar Session</li> </ul>	

6	<ul style="list-style-type: none"> <li>Apply analytical tools of health economics in the field of public health.</li> </ul>	<ul style="list-style-type: none"> <li>PPT Presentation (Health Economics and Public Health)</li> </ul>	15 hours	<ul style="list-style-type: none"> <li>Discussion Forum (<b>Mandatory Activity:</b> Identify public/private goods in healthcare)</li> <li>Webinar Session</li> </ul>	
7	<ul style="list-style-type: none"> <li>10. Justify the role of economic analysis in the evaluation of preventive interventions and policies and argue on the usefulness of economic evidence towards supporting the implementation of preventive interventions.</li> </ul>	<ul style="list-style-type: none"> <li>PPT Presentation (The Economics of Prevention)</li> </ul>	15 hours	<ul style="list-style-type: none"> <li>Discussion Forum (Evidence on the economic efficiency of preventive policies)</li> </ul>	
8	<ul style="list-style-type: none"> <li>Analyse the mechanisms that motivate people towards or against “healthy choices” and provide examples of</li> </ul>	<ul style="list-style-type: none"> <li>PPT Presentation (Behavioral Economics, Health Economics and Public Health)</li> </ul>	15 hours & 20 hours Assignment Preparation	<ul style="list-style-type: none"> <li>Discussion Forum (Behavioural Interventions)</li> <li>Webinar Session</li> </ul>	

	<p>behavioural interventions that could be adopted as public health policies.</p> <ul style="list-style-type: none"> <li>• Understand the concept of Mental Health as an intangible good and its difficulties to evaluate the benefit of any measures taken.</li> </ul>				
9	<ul style="list-style-type: none"> <li>• Assess the mechanisms through which the health status of the population affects the growth of the economy.</li> <li>• Evaluate the effects of economic growth on population health and appraise the difference of these effects on the various population groups, based on their</li> </ul>	<ul style="list-style-type: none"> <li>• PPT Presentation (Health and Economic Development)</li> </ul>	15 hours	<ul style="list-style-type: none"> <li>• Discussion Forum (Evidence on health and economic growth)</li> </ul>	



	<p>socioeconomic status.</p> <ul style="list-style-type: none"><li>• Define the wellbeing in the shed of the Ottawa Charta's concept of "Salutogenesis"</li></ul>				
10	<ul style="list-style-type: none"><li>• Critically evaluate the strengths and weaknesses of Bismarck-type systems and identify the key examples (countries) of application.</li></ul>	<ul style="list-style-type: none"><li>• PPT Presentation (Healthcare systems around the world I: Bismarck-type systems)</li></ul>	15 hours	<ul style="list-style-type: none"><li>• Q&amp;A Forum</li><li>• Webinar Session</li></ul>	
11	<ul style="list-style-type: none"><li>• Critically evaluate the strengths and weaknesses of Beveridge-type systems and identify the key examples (countries) of application.</li></ul>	<ul style="list-style-type: none"><li>• PPT Presentation (Healthcare systems around the world II: Beveridge-type systems)</li></ul>	15 hours	<ul style="list-style-type: none"><li>• Q&amp;A Forum</li></ul>	

12	<ul style="list-style-type: none"> <li>Comparatively assess the performance of insurance type vs. taxation type systems and critically evaluate the strengths and weaknesses of each system.</li> <li>Justify the need for universal coverage and the role of mixed methods of fund pooling.</li> </ul>	<ul style="list-style-type: none"> <li>PPT Presentation (Healthcare systems around the world III: mixed methods of fund pooling)</li> </ul>	15 hours	<ul style="list-style-type: none"> <li>Q&amp;A Forum</li> <li>Discussion Forum <b>(Mandatory Activity:</b> Identify the typology of health systems)</li> </ul>	
13	<ul style="list-style-type: none"> <li>Debate the issues pertaining the ordering of and preferences for resource allocation states in healthcare within a social welfare function</li> <li>Evaluate the methods and applications of Multiple Criteria Decision Analysis in healthcare.</li> </ul>	<ul style="list-style-type: none"> <li>PPT Presentation (Resource Allocation in Healthcare: Incorporating Societal Value Judgments in the decision-making Process)</li> </ul>	15 hours	<ul style="list-style-type: none"> <li>Webinar Session</li> <li>Discussion Forum <b>(Mandatory Activity:</b> Identify social values that influence healthcare decisions)</li> </ul>	

14	• n/a (student revision for exams)	• n/a	30 hours	• n/a	
<b>v. Teaching methods</b>					
Teaching material including PowerPoint presentations with extended descriptions and explanations, asynchronous video presentations, additional readings (journal articles and e-books), access to additional videos and commercials related to the module, synchronous meetings (WebEx), forums, chats, quizzes, case studies and other formative and summative assessments.					
<b>vi. Written work – Exams – Assessment</b>					
This course is assessed via a combination of summative assignments and exams.					
<b>Written Exams</b>					
<b>Final Exam:</b>					
Students are expected to undertake a written final examination. This is ordinarily expected to be completed with physical presence. The School will arrange for the final exam to take place in examination centres in different parts of the world. The School will provide a list of examination centres and you will be expected to inform the School of a convenient one, at which you will attend the course’s final examination. Different arrangements may apply in exceptional circumstances, for example, during the Covid-19 pandemic, when final examinations will be completed online using electronic invigilation software.					
<b>vii. Communication</b>					
The following opportunities for communication are provided to students in an attempt to enhance interaction between i. Student and faculty, ii. Student and student iii. Student and content:					
<ul style="list-style-type: none"> <li>• Webinars</li> <li>• Q&amp;A discussion forums and chats</li> <li>• Wikis</li> <li>• Email</li> <li>• Skype</li> </ul>					

## DEPARTMENT OF PRIMARY CARE AND POPULATION HEALTH

### MASTER OF PUBLIC HEALTH (MPH)

#### Study Guide

# **MPH-523: Health Economics in the Context of Health Services and Systems: Global Perspectives**

Course Lead:

Dr Raoul Hecker

Contributor:

Dr George Samoutis

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## Introductory note

This Study Guide is a basic supplement for the distance learning course MPH-523 'Health Economics in the Context of Health Services and Systems: Global Perspectives', which is offered by the distance learning Master of Public Health (MPH) Programme. The broad objective of the course is to introduce the principles of health economics and analyse the different methods for assessing needs, pricing, reimbursing, prioritizing, and assessing utilization and performance of health services, as well as critically evaluate different healthcare systems globally highlighting the main characteristics, strengths, and limitations of each.

The aim of this Guide is to direct the students and help them into making systematic use of the educational material on which the teaching of the course is based. The Guide must be used in common with the Course Outline and with the educational material (recorded lectures, online tutorials, exercises, articles, and book chapters), as indicated for each section in the interactive e-Learning Platform of the course (Moodle). Students are advised to start their studying by the recorded course lecture for each topic, in order to take full benefit of the additional activities as listed in the current Guide and described in detail on the Moodle page of the course.

The current course includes **13 sections**. The course material will be made available on Moodle over a duration of **14 weeks**, including **1 study week** at the end of the semester. Each of these sections represents a core course topic and is composed of the following components:

- Learning Objectives and Outcomes
- Teaching Material
- Additional learning activities to complete
- Additional Support Material
- Key words

At the beginning of each study week, students are expected to familiarise themselves with the corresponding sections' objectives and learning outcomes, while they should

go through the **teaching material** (recorded lectures) and conduct the **additional learning activities**. Learning activities will have a designated start and end date and time, which will be communicated to students via email. Some activities will be synchronous (e.g. webinars, online chats), while others will be asynchronous (e.g. Q&A Fora). The former will involve direct live interaction (either chat or verbal/video) between students and tutor, as well as between students themselves (student-tutor, student-student interactions), while in the latter the aforementioned interactions will not be live. More details on learning activities are provided on Moodle (orientation week). Going through the teaching material and conducting the learning activities is essential, since it will help in clarifying and assimilating the material of the course as well as developing critical thinking on each topic.

In addition to the essential components described above, each section contains **additional support material**, comprising relevant bibliography (relevant textbooks and designated chapters), as well as relevant online resources (websites and other documents such as scientific articles) and online videos to watch. Additional support material found on Moodle is recommended for acquiring more in-depth knowledge of the relevant concepts, however these are not essential for addressing the section Learning Outcomes, nor for the relevant assessment. Students are strongly encouraged to go through these additional resources, as part of self-directed learning, which will facilitate deeper understanding and critical thinking on the topic of interest. The relevant online resources and videos could be updated and/or enriched during the semester.

All relevant resources and activities can be found on the Moodle page of the specific course. It is essential that you follow the specific Study Guide in combination with the course's Moodle page throughout the duration of the course, in order to organise your learning time efficiently and take full advantage of the learning material offered. You will have the opportunity to revise the course material at the end of the Semester, during the examination period.

## Course Weekly Schedule

<b>Week 1</b>	
Section 1	Introduction to Health Economics
<b>Week 2</b>	
Section 2	Healthcare insurance and the government's role in healthcare
<b>Week 3</b>	
Section 3	Financing healthcare: the concepts of pricing and reimbursement
<b>Week 4</b>	
Section 4	Economic evaluation in healthcare: methods
<b>Week 5</b>	
Section 5	Economic evaluation of healthcare interventions: case study – pharmaceuticals
<b>Week 6</b>	
Section 6	Health Economics and Public Health
<b>Week 7</b>	
Section 7	The economics of prevention
<b>Week 8</b>	
Section 8	Behavioural economics, health economics and public health
<b>Week 9</b>	
Section 9	Health and Economic Development
<b>Week 10</b>	
Section 10	Healthcare systems around the world I: Bismarck-type systems
<b>Week 11</b>	
Section 11	Healthcare systems around the world II: Beveridge-type systems
<b>Week 12</b>	
Section 12	Healthcare systems around the world III: mixed methods of fund pooling
<b>Week 13</b>	
Section 13	Resource allocation in healthcare: incorporating societal value judgments in the decision-making process
<b>Week 14</b>	
Study Week	

## Section 1 – Introduction to Health Economics

### Learning Objectives and Outcomes

#### Objectives

The specific section aims to introduce students to the basic principles and key concepts of Health Economics and to highlight the importance of the topic within the modern decision-making context in healthcare.

#### Expected Learning Outcomes

After the completion of this section, the students are expected to:

1. Analyse the key definitions and ideas that outline Health Economics and evaluate the importance of the discipline within the application of the “fundamental economic problem” in health, i.e. the asymmetry of resources vs. healthcare needs.

### Teaching Material

#### Recorded Lectures

- Welcome video by Course Lead (introduction to the Course, outline of course objectives, introduction to the course lecturers)
- Recorded PowerPoint Presentation (Introduction to Health Economics)

#### Additional learning activities to complete

- Webinar session
- Discussion Forum (What is efficiency?)

**Description:** Students are requested to discuss the various aspects of efficiency and to present examples of interventions that are aimed towards increasing the efficiency of spending in healthcare.

### Additional Support Material

#### Bibliography

- Morris S, Devlin N, Parkin D, Spencer A, eds., Economic Analysis in Health Care (2nd ed.). Chichester: John Wiley & Sons, 2012. Chapter 1.

### **Websites and Other relevant resources**

- NIH - Health Economics Information Resources: A Self-Study Course: Module 1 - The Scope of Health Economics  
([https://www.nlm.nih.gov/nichsr/edu/healthecon/01\\_he\\_intro.html](https://www.nlm.nih.gov/nichsr/edu/healthecon/01_he_intro.html))
- NIH - Health Economics Information Resources: A Self-Study Course: Key General Economics Concepts  
(<https://www.nlm.nih.gov/nichsr/edu/healthecon/key.html>)
- CDC - Public Health Economics and Tools  
(<https://www.cdc.gov/stltpublichealth/pheconomics/>)
- Messonnier ML, Economics and Public Health at CDC  
(<https://www.cdc.gov/mmwr/preview/mmwrhtml/su5502a7.htm>)

### **Online videos**

- Retrospective on Health Economics by Dr. Kenneth Arrow  
([https://www.youtube.com/watch?v=eH3B-sVx\\_GE](https://www.youtube.com/watch?v=eH3B-sVx_GE))
- Can Economics Help Us Build a Sustainable Health Care System?  
(<https://www.youtube.com/watch?v=npvKklriZIE>)

**Expected study time:** 13 hours

### **Key words**

Health Economics, Fundamental Economic Problem, Resource Constraints

## Section 2 – Healthcare insurance and the government’s role in Healthcare

### Learning Objectives and Outcomes

#### Objectives

The specific section aims to introduce and analyse the concept health insurance, with a focus on social insurance, and describe the role of the government in healthcare regulation and delivery.

#### Expected Learning Outcomes

After the completion of this section, the students are expected to:

2. Relate and contrast different types of health insurance, including social insurance and voluntary private insurance.
3. Critically evaluate the motives behind government intervention in healthcare markets as well as the means and methods through which this intervention takes place.

### Teaching Material

#### Recorded Lectures

- Recorded PowerPoint Presentation (Healthcare Insurance and the Government’s Role in Healthcare)

#### Additional learning activities to complete

- Discussion Forum (Market failures in healthcare)

**Description:** Students are requested to discuss the reasons of market failure in healthcare, to present real-life examples of government intervention and to discuss the motives/rationale behind the intervention.

### Additional Support Material

#### Bibliography

- Morris S, Devlin N, Parkin D, Spencer A, eds., Economic Analysis in Health Care (2nd ed.). Chichester: John Wiley & Sons, 2012. Chapter 5 and Chapter 6 (p.133-153).

### **Websites and Other relevant resources**

- What role should governments play in healthcare?  
(<https://www.weforum.org/agenda/2015/12/what-role-should-governments-play-in-healthcare/>)
- Government Intervention in the Markets for Education and Health Care: How and Why? (<http://www.nber.org/papers/w4916>)
- Health care as a merit good and market failures in healthcare  
([http://www.economicsonline.co.uk/Market\\_failures/Healthcare.html](http://www.economicsonline.co.uk/Market_failures/Healthcare.html))
- Health insurance around the world  
([https://en.wikipedia.org/wiki/Health\\_insurance](https://en.wikipedia.org/wiki/Health_insurance))

**Expected study time:** 13 hours

### **Key words**

Social Insurance, Private Insurance, Market Failure, Government Intervention in Health Care

## Section 3 – Financing healthcare: the concepts of pricing and reimbursement

### Learning Objectives and Outcomes

#### Objectives

The specific section aims to introduce students to the methods of healthcare financing in the context of health systems and discuss the activities of pricing and reimbursement.

#### Expected Learning Outcomes

After the completion of this section, the students are expected to:

4. Critically evaluate the different methods of financing healthcare services in the context of health systems.
5. Analyse the terms of “cost”, “price”, “value” and “reimbursement”

### Teaching Material

#### Recorded Lectures

- Recorded PowerPoint Presentation (Financing Healthcare: the Concepts of Pricing and Reimbursement)

#### Additional learning activities to complete

- Webinar session
- Discussion Forum (Healthcare expenditure per country)

**Description:** Students are requested to find, present and analyse the current status and trends in healthcare expenditure in a country of their choice.

### Additional Support Material

#### Bibliography

- Morris S, Devlin N, Parkin D, Spencer A, eds., *Economic Analysis in Health Care* (2nd ed.). Chichester: John Wiley & Sons, 2012. Chapter 5 and Chapter 6 (p.154-162).
- Folland S, Goodman AC and Stano M.; *The economics of health and health care*, Prentice Hall (7<sup>th</sup> Edition) Chapter 6 (105-116)

#### **Websites and Other relevant resources**

- WHO - Health financing for universal coverage  
([http://www.who.int/health\\_financing/en/](http://www.who.int/health_financing/en/))
- WHO - Global Health Observatory (GHO) data: Health Financing  
([http://www.who.int/gho/health\\_financing/en/](http://www.who.int/gho/health_financing/en/))
- Reimbursement of pharmaceuticals: reference pricing versus health technology assessment  
([https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3078322/pdf/10198\\_2010\\_Article\\_274.pdf](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3078322/pdf/10198_2010_Article_274.pdf))
- Value-based differential pricing: efficient prices for drugs in a global context.  
*Health Econ.* 2015 Mar;24(3):294-301

**Expected study time:** 13 hours

#### **Key words**

Healthcare Financing, Reimbursement, Pricing, Cost

## Section 4 - Economic evaluation in healthcare: methods

### Learning Objectives and Outcomes

#### Objectives

The specific section aims to introduce students to the methods of economic evaluation of healthcare interventions and equip them with the skills for designing and critically evaluating cost-effectiveness analyses.

#### Expected Learning Outcomes

After the completion of this section, the students are expected to:

6. Justify the rationale behind economic evaluation in healthcare and appropriately apply the different types of economic evaluations (cost-minimization, cost-effectiveness, cost-utility, and cost-benefit analysis) for a healthcare intervention.

### Teaching Material

#### Recorded Lectures

- Recorded PowerPoint Presentation (Economic Evaluation in Healthcare: Methods)

#### Lecture Notes

- Study notes prepared by the course lead

### Additional learning activities to complete

- Webinar session
- Discussion Forum (**Mandatory Activity:** Design an economic evaluation)

**Description:** Students are asked to use the section's material regarding the design of an economic evaluation. Students will be presented with a decision problem and requested to plan an economic evaluation. Special focus shall be given to the methodological approach and the sources of evidence for the evaluation.

## Additional Support Material

### Bibliography

- Drummond ME, Sculpher M, Claxton K, Stoddart GL, Torrance GW; Methods for the Economic Evaluation of Health Care Programmes (4<sup>th</sup> Edition), Oxford Medical Publications (2015) Chapter 1 and Chapter 3.

### Websites and Other relevant resources

- NIH - Health Economics Information Resources: A Self-Study Course: Module 3 - Identification and Retrieval of Published Health Economic Evaluation Studies ([https://www.nlm.nih.gov/nichsr/edu/healthecon/03\\_he\\_intro.html](https://www.nlm.nih.gov/nichsr/edu/healthecon/03_he_intro.html))
- NIH - Health Economics Information Resources: A Self-Study Course: Module 4 - An Introduction to the Principles of Critical Appraisal of Health Economic Evaluation Studies ([https://www.nlm.nih.gov/nichsr/edu/healthecon/04\\_he\\_intro.html](https://www.nlm.nih.gov/nichsr/edu/healthecon/04_he_intro.html))
- CDC - Five-Part Webcast on Economic Evaluation ([https://www.cdc.gov/dhdsp/programs/spha/economic\\_evaluation/](https://www.cdc.gov/dhdsp/programs/spha/economic_evaluation/))
- The Johns Hopkins University Evidence-based Practice Centre - Best Practices for Conducting Economic Evaluations in Health Care: A Systematic Review of Quality Assessment Tools (<https://www.ncbi.nlm.nih.gov/books/NBK114545/>)
- Sanders GD, et al, Recommendations for Conduct, Methodological Practices, and Reporting of Cost-effectiveness Analyses: Second Panel on Cost-Effectiveness in Health and Medicine, *JAMA*. 2016;316(10):1093-1103.
- Consolidated Health Economic Evaluation Reporting Standards (CHEERS) statement (<https://www.bmj.com/content/346/bmj.f1049>)
- Consolidated Health Economic Evaluation Reporting Standards (CHEERS)— Explanation and Elaboration: A Report of the ISPOR Health Economic Evaluation Publication Guidelines Good Reporting Practices Task Force ([https://www.valueinhealthjournal.com/article/S1098-3015\(13\)00022-3/pdf](https://www.valueinhealthjournal.com/article/S1098-3015(13)00022-3/pdf))

### Online videos

- Cost-Effectiveness Analysis (CEA) in Health  
([https://www.youtube.com/watch?v=b9PHwhyxIQI&list=PLPdSQGGMt89e4\\_ObAbU8F8ZASfgAoNVH9](https://www.youtube.com/watch?v=b9PHwhyxIQI&list=PLPdSQGGMt89e4_ObAbU8F8ZASfgAoNVH9))
- Intro to Economic Evaluation of Health Technology  
(<https://www.youtube.com/watch?v=EXUWHJTvVaA>)
- What is Cost Benefit and Cost Effectiveness Analysis?  
(<https://www.youtube.com/watch?v=rtgxib3glsI>)
- What is a QALY? (<https://www.youtube.com/watch?v=3tDXwKVkn68>)
- QALY, Quality of life measurement  
(<https://www.youtube.com/watch?v=Mo8y5lZgevM>)

**Expected study time:** 13 hours

### Key words

Economic Evaluation, Cost-Minimization Analysis, Cost-Effectiveness Analysis, Cost-Utility Analysis, Cost-Benefit Analysis.

## Section 5 – Economic evaluation of healthcare interventions: case study - pharmaceuticals

### Learning Objectives and Outcomes

#### Objectives

The specific section aims to present a case-study based on the economic evaluation of pharmaceuticals.

#### Expected Learning Outcomes

After the completion of this section, the students are expected to:

7. Relate the basic steps of an economic evaluation (cost-effectiveness/cost utility analysis) for pharmaceuticals to key sources of information.
8. Evaluate the key reasons behind uncertainty and appraise methods through which the uncertainty issue within an economic evaluation can be addressed.

### Teaching Material

#### Recorded Lectures

- Recorded PowerPoint Presentation (Economic Evaluation of Healthcare Interventions: Case Study – Pharmaceuticals)

#### Additional learning activities to complete

- Discussion Forum (**Mandatory Activity:** Evaluate a published economic evaluation)

**Description:** Students are asked to use the section's material regarding the critical evaluation of an economic evaluation. Students will be presented with a published economic evaluation and asked to report whether the evaluation complies with the reporting standards, as outlined by a specific questionnaire.

- Webinar Session

## Additional Support Material

### Bibliography

- Drummond ME, Sculpher M, Torrance GW, O' Brien B, Stoddart GL; Methods for the Economic Evaluation of Health Care Programs (3<sup>rd</sup> Edition), Oxford Medical Publications (2005) Chapter 5 and selected sections from Chapter 6.

→ *Permalink for e-book:*

<https://ebookcentral.proquest.com/lib/nicosia/detail.action?docID=4605509>

### Websites and Other relevant resources

- Guidelines for the Economic Evaluation of Health Technologies: Canada ([https://www.cadth.ca/sites/default/files/pdf/guidelines\\_for\\_the\\_economic\\_evaluation\\_of\\_health\\_technologies\\_canada\\_4th\\_ed.pdf](https://www.cadth.ca/sites/default/files/pdf/guidelines_for_the_economic_evaluation_of_health_technologies_canada_4th_ed.pdf))
- Office of Health Economics - Guidelines for the Economic Evaluation of Pharmaceuticals: Can the UK learn from Australia and Canada? (<https://www.ohe.org/publications/guidelines-economic-evaluation-pharmaceuticals-can-uk-learn-australia-and-canada>)
- Methods for health economic evaluations - A guideline based on current practices in Europe ([https://www.eunetha.eu/wp-content/uploads/2018/03/Methods\\_for\\_health\\_economic\\_evaluations.pdf](https://www.eunetha.eu/wp-content/uploads/2018/03/Methods_for_health_economic_evaluations.pdf))
- Health Technology Assessment and Economic Evaluation across Jurisdictions (<https://onlinelibrary.wiley.com/doi/pdf/10.1111/j.1524-4733.2010.00756.x>)
- Sensitivity analysis in economic evaluation: an audit of NICE current practice and a review of its use and value in decision-making. (<https://www.ncbi.nlm.nih.gov/pubmed/19500484>)

**Expected study time:** 13 hours

### Key words

Economic Evaluation, Cost-Effectiveness Analysis, Cost-Utility Analysis, Uncertainty, Sensitivity Analysis, Health Technology Assessment.

## Section 6 – Health Economics and Public Health

### Learning Objectives and Outcomes

#### Objectives

The specific section aims to explain the application of the principles of health economics in the context of public health and highlight the interrelations between the two scientific disciplines.

#### Expected Learning Outcomes

After the completion of this section, the students are expected to:

9. Apply analytical tools of health economics in the field of public health.

### Teaching Material

#### Recorded Lectures

- Recorded PowerPoint Presentation (Health Economics and Public Health)

#### Additional learning activities to complete

- Webinar session (**Mandatory Activity:** Debate assignment guidelines and preparation)

**Description:** Students will be asked to debate whether healthcare is a public or a private good, especially during a pandemic. Students will be split into three groups; one group will be asked to argue for healthcare being a public good (hence healthcare being provided by the government) while the second will oppose the resolution using arguments as to why healthcare should be a private good (left up to the free market) using the academic debate format. The third group, along with the tutor will judge the quality of the evidence and arguments and the performance in the debate. During this webinar, the guidelines along with key material for preparation will be shared/discussed with the students. Students will be given 1-2 weeks to prepare, and the debate will be carried during a dedicated webinar session.

- Q & A Forum (Identify public/private goods in healthcare)

**Description:** Students will be presented with a series of healthcare goods/services. After reviewing the section material, students will be requested to categorize those goods/services as either public or private goods, after applying critical thinking and rationale

### Additional Support Material

#### Websites and Other relevant resources

- Carande-Kulis VG, Getzen TE, Thacker SB. Public goods and externalities: a research agenda for public health economics. *J Public Health Manag Pract.* 2007 Mar-Apr; 13(2):227-32. Available at (<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.466.6621&rep=rep1&type=pdf>)
- Ammerman AS, Farrelly MA, Cavallo DN, Ickes SB, Hoerger TJ. Health economics in public health. *Am J Prev Med.* 2009 Mar;36(3):273-5.
- Wikipedia: <https://en.wikipedia.org/wiki/Salutogenesis>
- Link BG, Phelan JC. McKeown and the idea that social conditions are fundamental causes of disease. *Am J Public Health.* 2002 May;92(5):730-2.
- OECD- Public Health (<http://www.oecd.org/health/public-health.htm>)
- Israel S. How social policies can improve financial accessibility of healthcare: a multi-level analysis of unmet medical need in European countries. *Int J Equity Health.* 2016 Mar 5;15:41.
- Halpin HA, Hankins SW, Scutchfield FD. Broadening the role of the health economist to include public health research: a commentary. *Am J Prev Med.* 2009 Mar;36(3):276-7.
- CDC: <https://www.cdc.gov/mentalhealth/learn/index.htm>
- Health economics: a guide for public health teams (<https://www.gov.uk/guidance/health-economics-a-guide-for-public-health-teams>)
- Cost savings and the economic case for investing in public health (<https://publichealthmatters.blog.gov.uk/2018/04/09/cost-savings-and-the-economic-case-for-investing-in-public-health/>)



- CDC: Public Health Economics and Methods  
(<https://www.cdc.gov/stltpublichealth/pheconomics/>)
- Public Goods in Economics  
(<https://www.youtube.com/watch?v=oqm4mE8slfs>)
- Political: What are Public Goods? (<https://www.khanacademy.org/partner-content/wi-phi/wiphi-value-theory/wiphi-political/v/what-are-public-goods>)
- Positive externalities (<https://www.khanacademy.org/economics-finance-domain/ap-microeconomics/ap-consumer-producer-surplus/ap-externalities-topic/v/positive-externalities>)
- Negative externalities (<https://www.khanacademy.org/economics-finance-domain/ap-microeconomics/ap-consumer-producer-surplus/ap-externalities-topic/v/negative-externalities>)

**Non-Academic Readings:**

- Klein G, Bauman Y: The Cartoon Introduction to Economics, Volume Two: Macroeconomics, Hill & Wang Publishers

**Expected study time:** 13 hours

**Key words**

Health Economics, Public Health, Externalities, Public Goods

## Section 7 – The economics of prevention

### Learning Objectives and Outcomes

#### Objectives

The specific section aims to elaborate on the role of the economic analysis on preventive interventions.

#### Expected Learning Outcomes

After the completion of this section, the students are expected to:

10. Justify the role of economic analysis in the evaluation of preventive interventions and policies and argue on the usefulness of economic evidence towards supporting the implementation of preventive interventions.

### Teaching Material

#### Recorded Lectures

- Recorded PowerPoint Presentation (The Economics of Prevention)

### Additional learning activities to complete

- Discussion Forum (Evidence on the economic efficiency of preventive policies)

**Description:** Students are requested to present and discuss evidence surrounding the economic efficiency of interventions that focus on prevention, based on published studies

### Additional Support Material

#### Bibliography

- McDaid D, Sassi F, Merkur S. Promoting Health, Preventing Disease The Economic Case. European Observatory on Health Systems and Policies 2015. Chapters 1 and 2. Available at:  
[http://www.euro.who.int/\\_data/assets/pdf\\_file/0006/283695/Promoting-Health-Preventing-Disease-Economic-Case.pdf?ua=1](http://www.euro.who.int/_data/assets/pdf_file/0006/283695/Promoting-Health-Preventing-Disease-Economic-Case.pdf?ua=1)

### Websites and Other relevant resources

- Investing in prevention: the need to make the case now  
(<https://publichealthmatters.blog.gov.uk/2016/02/22/investing-in-prevention-the-need-to-make-the-case-now/>)
- Investing in prevention: is it cost-effective?  
(<https://publichealthmatters.blog.gov.uk/2016/02/29/investing-in-prevention-is-it-cost-effective/>)
- Investing in prevention: counting the cost  
(<https://publichealthmatters.blog.gov.uk/2016/03/07/investing-in-prevention-counting-the-cost/>)
- Investing in prevention: sharing the burden and the benefits  
(<https://publichealthmatters.blog.gov.uk/2016/03/14/investing-in-prevention-sharing-the-burden-and-the-benefits/>)
- The case for investing in public health  
([http://www.euro.who.int/\\_data/assets/pdf\\_file/0009/278073/Case-Investing-Public-Health.pdf?ua=1](http://www.euro.who.int/_data/assets/pdf_file/0009/278073/Case-Investing-Public-Health.pdf?ua=1))
- OECD - Promoting Health, Preventing Disease: The economic case  
(<https://www.oecd-ilibrary.org/docserver/9780335262274-en.pdf?expires=1528296549&id=id&accname=guest&checksum=09BB8B4FACBB4CBC038A7B43801B5222>)
- OECD – The economics of prevention  
(<https://www.oecd.org/fr/sante/economics-of-prevention.htm>)
- Weatherly H, Drummond M, Claxton K, Cookson R, Ferguson B, Godfrey C, Rice N, Sculpher M, Sowden A. Methods for assessing the cost-effectiveness of public health interventions: key challenges and recommendations. Health Policy. 2009 Dec;93(2-3):85-92.
- NHS Scotland. Economics of prevention  
(<http://www.healthscotland.scot/media/1089/economics-of-prevention-mar16.pdf>)

**Expected study time:** 13 hours

**Key words**

Economic Analysis, Prevention, Economics of Prevention

## Section 8 – Behavioural economics, health economics and public health

### Learning Objectives and Outcomes

#### Objectives

The specific section aims to present the analytical approach of behavioural economics with regards to consumer preferences, attitudes and choices against healthcare services and risk factors for health.

#### Expected Learning Outcomes

After the completion of this section, the students are expected to:

11. Analyse the mechanisms that motivate people towards or against “healthy choices” and provide examples of behavioural interventions that could be adopted as public health policies.
12. Understand the concept of Mental Health as an intangible good and its difficulties to evaluate the benefit of any measures taken.

### Teaching Material

#### Recorded Lectures

- Recorded PowerPoint Presentation (Behavioral Economics, Health Economics and Public Health)

#### Additional learning activities to complete

- Webinar session
- Discussion Forum (Behavioural interventions)

**Description:** Students are requested to present and provide the rationale behind the implementation of a number of examples of behavioural interventions that have been applied in the real-world setting. Critical thinking is essential!

### Additional Support Material

#### Bibliography

- Bhattacharya J, Hyde T, Tu P. Health Economics. Palgrave, Macmillan 2014.  
Chapter 23 and Chapter 24

### Websites and Other relevant resources

- Applying Behavioral Economics to Public Health Policy: Illustrative Examples and Promising Directions  
(<https://www.sciencedirect.com/science/article/pii/S0749379716000635>)
- How Behavioral Economics Can Produce Better Health Care  
(<https://www.nytimes.com/2017/04/13/upshot/answer-to-better-health-care-behavioral-economics.html>)
- Behavioral Economics and Healthcare: A Match Made in Heaven  
(<https://www.behavioraleconomics.com/behavioural-economics-and-healthcare-a-match-made-in-heaven/>)
- Behavioral Economics and Health Economics. NBER Working Paper No. 10881  
(<http://www.nber.org/papers/w10881>)
- The Behavioral Economics of Health and Health Care  
(<https://www.annualreviews.org/doi/full/10.1146/annurev-publhealth-031912-114353>)
- Public health and behavioral economics. Interview plus transcript from the TH Chan School of Public Health (Harvard).  
(<https://www.hsph.harvard.edu/news/multimedia-article/public-health-behavioral-economics/>)
- In Focus: Using Behavioral Economics to Advance Population Health and Improve the Quality of Health Care Services  
(<https://www.commonwealthfund.org/publications/newsletter/focus-using-behavioral-economics-advance-population-health-and-improve>)
- ‘Nudging’ behaviours in healthcare: insights from behavioural economics  
([http://eprints.lse.ac.uk/61744/1/Voyer\\_%E2%80%98Nudging%E2%80%99%20behaviours%20in%20healthcare%20insights%20from%20behavioural%20economics.pdf](http://eprints.lse.ac.uk/61744/1/Voyer_%E2%80%98Nudging%E2%80%99%20behaviours%20in%20healthcare%20insights%20from%20behavioural%20economics.pdf))

**Expected study time:** 13 hours

**Key words**

Behavioral Economics, Health Economics, Public Health, Motives, Risk Factors.

## Section 9 – Health and Economic Development

### Learning Objectives and Outcomes

#### Objectives

The specific section aims to present the “two-way interplay” between health and economic development, i.e. to describe the ways through which health affects the growth of the economy and vice versa.

#### Expected Learning Outcomes

After the completion of this section, the students are expected to:

13. Assess the mechanisms through which the health status of the population affects the growth of the economy.
14. Evaluate the effects of economic growth on population health and appraise the difference of these effects on the various population groups, based on their socioeconomic status.
15. Define the wellbeing in the shed of the Ottawa Charta’s concept of “Salutogenesis”

### Teaching Material

#### Recorded Lectures

- Recorded PowerPoint Presentation (Health and Economic Development)

#### Additional learning activities to complete

- Discussion Forum: Evidence on health and economic growth

**Description:** A discussion will take place on the mechanisms through which health promotes economic growth. Actual examples will be presented and discussed.

### Additional Support Material

#### Bibliography

- Guillem Lopez Casasnovas, Berta Rivera and Luis Currais eds. Health and Economic Growth: Findings and Policy Implications. MIT Press. Chapters 2 and 9

### **Websites and Other relevant resources**

- The Effect of Health on Economic Growth: Theory and Evidence, NBER Working Paper, No. 8587 (<http://www.nber.org/papers/w8587>)
- Bloom D, Canning D, Sevilla JP The Effect of Health on Economic Growth: A Production Function Approach. (<https://www.sciencedirect.com/science/article/pii/S0305750X03001943>)
- Health and the economy: A vital relationship , pp. 9-11: ([http://oecdobserver.org/news/archivestory.php/aid/1241/Health\\_and\\_the\\_economy:\\_A\\_vital\\_relationship\\_.html](http://oecdobserver.org/news/archivestory.php/aid/1241/Health_and_the_economy:_A_vital_relationship_.html))
- Barro R. Health and Economic Growth (<http://aefweb.net/aefarticles/aef140202Barro.pdf>)
- Barriers to Health and the Poverty Trap (<http://www.nber.org/papers/w19263>)
- Poor trapped in poverty by disease (<https://www.nature.com/news/2009/091209/full/news.2009.1130.html>)
- Escaping the poverty trap: modeling the interplay between economic growth and the ecology of infectious disease (<https://arxiv.org/pdf/1311.4079.pdf>)
- Acemoglu D and Johnson S. Disease and Development: The Effect of Life Expectancy on Economic Growth. Journal of Political Economy. 2007, 115(6): 925-85.
- Bleakley, C. Disease and development: Evidence from hookworm eradication in the American South. Quarterly Journal of Economics, 2007 122(1): 73-117.

**Expected study time:** 13 hours

### **Key words**

Health status, Economic Growth, Socioeconomic Inequalities

## Section 10 – Healthcare systems around the world I: Bismarck-type systems

### Learning Objectives and Outcomes

#### Objectives

The specific section aims to present the key structural characteristics of Bismarck-type health systems and to critically evaluate the strengths and weaknesses.

#### Expected Learning Outcomes

After the completion of this section, the students are expected to:

16. Critically evaluate the strengths and weaknesses of Bismarck-type systems and identify the key examples (countries) of application.

### Teaching Material

#### Recorded Lectures

- Recorded PowerPoint Presentation (Healthcare systems around the world I: Bismarck-type systems)

### Additional learning activities to complete

- Webinar session
- Q&A Forum

**Description:** Students are requested to identify an example of a country that uses a Bismarck-type system and present its characteristics.

### Additional Support Material

#### Websites and Other relevant resources

- Roemer MI. National health systems throughout the world. *Annu Rev Public Health*. 1993;14:335-53. Available at <https://www.annualreviews.org/doi/pdf/10.1146/annurev.pu.14.050193.002003>

For this section focus on the “Welfare-oriented Health Systems” part of the text

- HealthMatters: The Bismarck Model  
(<http://healthmatters4.blogspot.com/2011/01/bismarck-model.html>)
- International Health Care Systems Part 3: The Bismarck Model  
(<http://morningsignout.com/international-health-care-systems-part-3-the-bismarck-model/>)
- National Health Systems: Public Service vs. Insurance-Based Models  
([https://econex.co.za/wp-content/uploads/2015/04/econex\\_health-reform-note\\_15.pdf](https://econex.co.za/wp-content/uploads/2015/04/econex_health-reform-note_15.pdf))
- Health Care: The Bismarck Model (<https://morningsignout.com/international-health-care-systems-part-3-the-bismarck-model/>)

**Expected study time:** 13 hours

**Key words**

Healthcare System, Social insurance, Bismarck

## Section 11 – Healthcare systems around the world II: Beveridge-type systems

### Learning Objectives and Outcomes

#### Objectives

The specific section aims to present the key structural characteristics of Beveridge-type health systems and to critically evaluate the strengths and weaknesses.

#### Expected learning outcomes

After the completion of this section, the students are expected to:

17. Critically evaluate the strengths and weaknesses of Beveridge-type systems and identify the key examples (countries) of application.

### Teaching Material

#### Recorded Lectures

- Recorded PowerPoint Presentation (Healthcare systems around the world II: Beveridge-type systems)

#### Additional learning activities to complete

- Q&A Forum

**Description:** Students are requested to identify an example of a country that uses a Beveridge-type system and present its characteristics.

### Additional Support Material

#### Websites and Other relevant resources

- Roemer MI. National health systems throughout the world. *Annu Rev Public Health*. 1993;14: 335-53. Available at <https://www.annualreviews.org/doi/pdf/10.1146/annurev.pu.14.050193.002003>

For this section focus on the “Comprehensive Health Systems” part of the text

- HealthMatters: The Beveridge Model (<http://healthmatters4.blogspot.com/2010/12/beveridge-model.html>)
- The Beveridge Report ([https://en.wikipedia.org/wiki/Beveridge\\_Report](https://en.wikipedia.org/wiki/Beveridge_Report))
- International Health Care Systems Part 1: The Beveridge Model (<http://morningsignout.com/international-health-care-systems-part-1-the-beveridge-model/>)
- Light DW. Universal health care: lessons from the British experience. Am J Public Health. 2003 Jan;93(1):25-30.
- Health Care: The Beveridge Model (<http://morningsignout.com/international-health-care-systems-part-1-the-beveridge-model/>)

**Expected study time:** 13 hours

**Key words**

Healthcare System, Social insurance, Beveridge

## Section 12 – Healthcare systems around the world III: mixed methods of fund pooling

### Learning Objectives and Outcomes

#### Objectives

The specific section aims to discuss the comparative outcomes of the key examples of healthcare systems organization (Bismarck vs. Beveridge) and highlight the role of mixed methods of fund pooling towards a broader spectrum of coverage for health services.

#### Expected Learning Outcomes

After the completion of this section, the students are expected to:

18. Comparatively assess the performance of insurance type vs. taxation type systems and critically evaluate the strengths and weaknesses of each system.
19. Justify the need for universal coverage and the role of mixed methods of fund pooling.

### Teaching Material

#### Recorded Lectures

- Recorded PowerPoint Presentation (Healthcare systems around the world III: mixed methods of fund pooling)

#### Additional learning activities to complete

- Q&A Forum
- Discussion Forum (**Mandatory Activity:** Identify the typology of health systems)

**Description:** Students will be presented with a number of health systems and will be requested to identify, using the material of the section as well as other sources, whether they can be classified as Bismarck or Beveridge type systems and critically evaluate their performance.

## Additional Support Material

### Websites and Other relevant resources

- Jouke van der Zee J, Kroneman MW. Bismarck or Beveridge: a beauty contest between dinosaurs. *BMC Health Serv Res.* 2007 Jun 26; 7:94.
- Kutzin J, Ibraimova A, Jakab M, O'Dougherty S. Bismarck meets Beveridge on the Silk Road: coordinating funding sources to create a universal health financing system in Kyrgyzstan. *Bull World Health Organ.* 2009 Jul;87(7):549-54.
- European parliament - health care systems in the EU: a comparative study ([http://www.europarl.europa.eu/workingpapers/saco/pdf/101\\_en.pdf](http://www.europarl.europa.eu/workingpapers/saco/pdf/101_en.pdf))
- Bismarck vs. Beveridge: is there increasing convergence between health financing systems? (<https://www.oecd.org/gov/budgeting/49095378.pdf>)
- Bismarck versus Beveridge: a comparison of social insurance systems in Europe (<http://www.cesifo-group.de/DocDL/dicereport408-db6.pdf>)
- Healthcare Systems in Comparative Perspective: Classification, Convergence, Institutions, Inequalities, and Five Missed Turns (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5536857/pdf/nihms880586.pdf>)

**Expected study time:** 13 hours

### Key words

Global Healthcare Systems, Fund pooling

## Section 13 – Resource allocation in healthcare: incorporating societal value judgments in the decision-making process

### Learning Objectives and Outcomes

#### Objectives

The last section of the course aims to introduce the concept of societal welfare and discuss the incorporation societal preferences in terms of policy decisions and priorities for resource allocation in healthcare.

#### Expected Learning Outcomes

After the completion of this section, the students are expected to:

20. Debate the issues pertaining the ordering of and preferences for resource allocation states in healthcare within a social welfare function
21. Evaluate the methods and applications of Multiple Criteria Decision Analysis in healthcare.

### Teaching Material

#### Recorded Lectures

- Recorded PowerPoint Presentation (Resource Allocation in Healthcare: Incorporating Societal Value Judgments in the decision-making Process)

#### Additional learning activities to complete

- Webinar Session
- Discussion Forum (**Mandatory Activity:** Identify the typology of health systems)

**Description:** Students will be requested to identify several social values that influence healthcare decisions and, in specific, criteria or dimensions of values that need to be considered when making resource allocation decisions. Critical thinking is required to justify the use of each value in resource allocation.

## Additional Support Material

### Bibliography

- Morris S, Devlin N, Parkin D, Spencer A, eds., *Economic Analysis in Health Care* (2nd ed.). Chichester: John Wiley & Sons, 2012. Chapter 9.

### Websites and Other relevant resources

- Brouwer WB, Culyer AJ, van Exel NJ, Rutten FF. Welfarism vs. extra-welfarism. *J Health Econ.* 2008 Mar;27(2):325-38.
- Welfarists vs. Extra-welfarists (<https://www.healthcare-economist.com/2008/02/13/welfarists-vs-extra-welfarists/>)
- Buchanan J., Wordsworth S. Welfarism versus extra-welfarism: can the choice of economic evaluation approach impact on the adoption decisions recommended by economic evaluation studies? *PharmacoEconomics.* June 2015, Volume 33, Issue 6, pp 571–579
- Thokala P, Devlin N, Marsh K, Baltussen R, Boysen M, Kalo Z, Longrenn T, Mussen F, Peacock S, Watkins J, Ijzerman M. Multiple Criteria Decision Analysis for Health Care Decision Making--An Introduction: Report 1 of the ISPOR MCDA Emerging Good Practices Task Force. *Value Health.* 2016 Jan;19(1):1-13.
- Marsh K, Ijzerman M, Thokala P, Baltussen R, Boysen M, Kaló Z, Lönnngren T, Mussen F, Peacock S, Watkins J, Devlin N; ISPOR Task Force. Multiple Criteria Decision Analysis for Health Care Decision Making--Emerging Good Practices: Report 2 of the ISPOR MCDA Emerging Good Practices Task Force. *Value Health.* 2016 Mar-Apr;19(2):125-37

### Online videos

- The Basics and Application MCDA in Healthcare Decision Making (part 1) (<https://www.youtube.com/watch?v=X0O6owlh8U4>)
- The Basics and Application MCDA in Healthcare Decision Making (part 2) (<https://www.youtube.com/watch?v=LFzSUDH4hvE>)
- The Basics and Application MCDA in Healthcare Decision Making (part 3) (<https://www.youtube.com/watch?v=tHMIYOU5tnk>)

**Expected study time:** 13 hours

**Key words**

Resource Allocation, Social Welfare, Social Welfare Function, Multiple Criteria

Decision Analysis

## Assessment

This course is assessed via a combination of attendance and participation in webinars and mandatory interactive activities (comprising 10% of total course marks), coursework (comprising 30% of total course marks) and a final comprehensive examination (comprising 60% of total course marks). In addition, the students will have the opportunity to undergo formative assessment, as a means of familiarising with the summative examination, as well as evaluating their performance in the course and receiving feedback from the course's tutor(s).

### **Participation and engagement in webinars and mandatory interactive activities**

The Participation Grade will constitute 10% of the *total course marks* and will be awarded based on i) webinar attendance and participation and ii) participation in five (5) learning activities. Participation includes active engagement in synchronous activities, such as webinars, and online chats; and/or successful completion of mandatory in-course interactive activities, such as discussion fora, Q&A fora, short quizzes and problem-solving scenarios. The mandatory interactive activities that will be used for this course are clearly stated under each section of this study guide.

### **Coursework**

The MPH-523 course comprises of the following coursework component:

- Essay on a topic of choice on the field of Health Economics and Public Health (*30% of total course marks*).

Detailed information and guidelines on the above coursework component will be uploaded on the course's Moodle page. All course work will be submitted via Moodle and marks will be communicated to students electronically.

### **Final Examination**

The MPH-523 final examination is a comprehensive exam assessing the specific learning outcomes (LOs) from all course sections. Since the exam is constructed explicitly based on the course's learning outcomes, students are strongly advised to follow an LO-driven approach while revising and preparing for the final examination. Students should be expected to be able to answer a given question on any LO covered during the course.

The final examination will be completed online using electronic invigilation software. More information will be shared with you closer to the examination week

### **Formative quiz and feedback**

Students will have the opportunity to attempt a formative quiz, which although not contributing to the course's total marks (i.e., formative), is compulsory. The purpose of the formative quiz is for students to: (a) evaluate their performance and understanding/assimilation of the learning material up to the point of the quiz; (b) familiarize themselves with the level and format of the course's exams; and (c) receive valuable feedback from the course tutor(s) on their performance, as well as guidance on how to improve. The formative quiz will be conducted via Moodle.

### Self-assessment exercises

**SBA1:** The new National Health Insurance System in Cyprus will need to determine which clinically effective interventions should be funded or reimbursed. Experts in Cyprus consult colleagues at the National Institute of Health and Care Excellence (NICE) in the UK and are advised to use economic analyses measuring quality-adjusted life years (QALYs).

What specific type of economic analysis is NICE recommending?

- A. Budget impact analysis.
- B. Cost benefit analysis.
- C. Cost minimisation analysis.
- D. Cost of illness analysis.
- E. Cost utility analysis.**

#### SBA1 notes on answer options:

- A. Wrong answer. BIA focuses only on the effects on the budget of social insurance from the introduction of a new technology, versus the world without the technology
- B. Wrong answer. Cost-benefit analysis measures the outcomes of an intervention in monetary terms
- C. Wrong answer. Cost minimization analysis assumes that the two interventions under comparison have equal efficacy and, thus, does not measure outcomes
- D. Wrong answer. Cost of illness analysis estimates the total costs of a disease (or risk factor) and does not focus on outcomes
- E. Correct answer. Cost-utility analysis measures the outcomes of each intervention under comparison in terms of QALYs

**SBA2:**

From an economics (and health economics) perspective, which of the following characteristics should a good to be defined as a “public good”?

- A. **both non-rivalry in use and failure of exclusion**
- B. either non-rivalry in use or failure of exclusion
- C. non-rivalry in use and failure of exclusion
- D. rivalry in use and ability of exclusion

SBA2 notes on answer options. See the table below:

	Excludable	Non-Excludable
Rival	Private goods	Common goods
Non-Rival	Club Goods	Public Goods